



BEFORE THE  
PUBLIC SERVICE COMMISSION OF WISCONSIN

Investigation on the Commission's Own Motion Regarding  
Advanced Renewable Tariff Development

5-EI-148

**NOTICE OF INVESTIGATION**

Comments Due: <b>Tuesday, February 17, 2009 – Noon</b>	Address Comments To: John Shenot, Policy Advisor Commissioners' Office Public Service Commission P.O. Box 7854 Madison, WI 53707-7854 FAX (608) 266-3957
This docket uses the Electronic Regulatory Filing system (ERF)	

**THIS IS AN INVESTIGATION** to examine whether and how to expand the availability and use of advanced renewable tariffs (ART) in Wisconsin and promote greater uniformity in the ARTs offered by Wisconsin electric utilities.

The Governor's Task Force on Global Warming issued a final report in July 2008 recommending that the state of Wisconsin develop and implement an advanced renewable tariff policy. More specifically, the Task Force recommended that the Commission convene a docket to determine the production costs of various distributed renewable resources such as solar, wind, small hydro, landfill gas, biogas, and other biomass sources.

The Commission has previously approved experimental renewable tariffs for some Wisconsin utilities on an individual case-by-case basis. In a recent rate case, the Commission decided to open this investigation into whether it should establish more uniform ARTs across all Wisconsin electric utilities.

The Commission requests responses from interested stakeholders to the questions listed below. It is not necessary for each respondent to answer every question. Wisconsin electric utilities are especially urged to respond.

**ART Experience to Date in Wisconsin and Elsewhere**

- 1. Wisconsin utilities for whom the Commission has previously approved an experimental ART are asked to respond to Questions 1.a. through 1.e.**
  - a. How did the utility decide upon the design and price of each ART?

- b. What effect did each ART have in terms of number of participating customers, enrolled capacity, and actual generation?
- c. To date, how would the total cost to the utility of each ART compare to market rates for electricity and market rates for electricity generated from renewable resources?
- d. What effect, if any, have ARTs had on utility rates, voluntary “green power” prices, and utility returns?
- e. What contribution has each ART made toward utility compliance with renewable portfolio standard obligations?

**2. Research and Experience Outside Wisconsin**

- a. Can you identify any research or reference documents that you believe will enhance the Commission’s understanding of ART design issues and/or the actual documented effects of ARTs outside Wisconsin? Please provide enough information for Commission staff to locate such documents; it is not necessary to provide copies.

**Costs of Producing Electricity from Renewable Resources**

**3. What might it cost the typical customer of a Wisconsin electric utility to construct/install a new renewable energy system using each of the following technologies? What might the typical customer’s lifetime operation and maintenance costs be? Please be explicit about sources of data, assumptions, and how costs might vary based on system size, location, or other variables.**

- a. Solar Photovoltaics (PV)
- b. Wind
- c. Landfill Gas
- d. Biogas other than Landfill Gas
- e. Biomass
- f. Hydroelectric
- g. Any other renewable electricity technologies for which data are available

**4. How much energy (in kilowatt-hours (kWh)) will be produced over the useful life of a typical customer-owned renewable energy system in Wisconsin using each of the following technologies? Please be explicit about sources of data, assumptions, and how production might vary based on system size, location, or other variables.**

- a. Solar
- b. Wind
- c. Landfill Gas
- d. Biogas other than Landfill Gas
- e. Biomass
- f. Hydroelectric
- g. Any other renewable electricity technologies for which data are available

## **ART Policy Issues**

### **5. What should the goals and objectives of an ART policy be?**

- a. What would you consider to be the primary purpose of an ART policy? Is the primary purpose to accelerate renewable energy installations, lower the cost of renewable energy, help utilities meet renewable portfolio standard (RPS) obligations, increase the diversity of installed renewables, reduce greenhouse gas emissions, or something else?
- b. Considering the primary purpose of the ART policy, what short- and long-term goals might be appropriate? In other words, how should the success of an ART policy be measured?
- c. Should the Commission establish ARTs for all electric utilities regulated by the Commission, all investor-owned utilities or all Class A utilities? Why or why not?
- d. What role, if any, should small, customer-owned renewables play in helping utilities meet RPS obligations? Should utilities seek to meet RPS obligations at the lowest possible price, or should other factors be considered? What ART structure would best complement an RPS?
- e. What role, if any, should small, customer-owned renewables play in helping utilities reduce greenhouse gases? Should utilities seek to reduce greenhouse gases at the lowest possible price, or should other factors be considered? What ART structure would best incentivize the reduction of greenhouse gases?

### **6. What are desirable and appropriate design structures?**

- a. Should the ART directly target new capacity *and* new generation?
- b. How can ART payment levels be structured such that producers are not undercompensated or overcompensated over the duration of the contract?
- c. Is long-term forecasting of renewable technology economics reliable enough to offer price guarantees? How should long-term forecasting affect ART structures?
- d. How should the availability of financial incentives for renewable technologies through the Focus on Energy program and voluntary utility programs affect decisions regarding ART payment amounts?

### **7. Other Policy Questions**

- a. Are there any legal issues which constrain the Commission's ability to develop and implement an ART policy?
- b. What effects might ARTs have on jobs, fossil fuel imports, and agriculture?
- c. Should utilities allow customers to voluntarily choose to purchase electricity generated from a specific technology (e.g., solar PV)?

## **ART Design Issues**

### **8. Overall Tariff Structure**

- a. Should ARTs offer a fixed price (e.g., 10¢/kWh), a fixed premium (e.g., 4¢/kWh above the Locational Marginal Price), a hybrid of the two structures, or some other structure?
- b. How might an ART be designed to incorporate components of both a fixed price structure and a fixed premium structure?
- c. Should customers be able to choose between a fixed rate and a fixed premium when signing an ART contract?

### **9. Program Size Limitations**

- a. Should the Commission limit the total program size of all ART offerings for the state as a whole, for individual utilities, and/or for specific technologies? If so, why?
- b. If the Commission limits total program size, what should the basis be for such limits? Should limits on ARTs be based on participation levels, installed capacity, actual generation, RPS obligations, costs, or something else? Should limits on ARTs be fixed amounts or proportional to total capacity, generation, costs, etc.?
- c. If program size limits are imposed, should enrollment be on a “first come, first served” basis or based on some other criteria?

### **10. Covered Renewable Energy Technologies**

- a. Are there any specific technologies for which all utilities should be required to offer an ART?
- b. On what basis should the Commission decide whether it is appropriate to offer an ART for a given technology?
- c. Should the ART be technology-specific or apply to a generic definition of renewables?

### **11. Individual Project Size Limitations**

- a. What project size limits, if any, are appropriate for each technology, and why?
- b. Should project size limits be uniform across utilities?

### **12. Contract Duration**

- a. Should utilities offer the same duration for all ART contracts regardless of the technology?
- b. What is the optimum duration for ART contracts and why?

### **13. Cost Recovery**

- a. Why and under what circumstances might it be appropriate for ART costs to be recovered through ordinary rates paid by all customers or a class of customers? For purposes of answering this question, assume “ART costs” means all costs arising from the administration of the ART.

- b. Why and under what circumstances might it be appropriate for ART costs to be recovered through a utility's voluntary renewable energy program?
- c. Should utilities have the discretion to choose the best means of cost recovery for each specific tariff, or should the Commission seek a uniform approach?

**14. Renewable/Environmental Attributes**

- a. Should ownership of associated renewable and environmental attributes (such as Renewable Energy Credits or greenhouse gas offsets) be consistent across all ARTs in Wisconsin?
- b. Should ARTs be established with separate prices depending on which party owns the renewable and environmental attributes?

**15. Basis for Setting Tariff Price**

- a. For a given technology, should there be any differentiation in ART prices based on design characteristics (e.g., vertical versus horizontal axis wind turbines), fuel source (e.g., biomass crops versus wood waste), or location (e.g., terrestrial versus offshore wind)?
- b. For a given technology, should ART prices decline as project size increases? If so, should size bands be created or should the price decline in linear proportion to size? How might the Commission decide on appropriate size bands?
- c. Should ART payment levels include any form of a capacity payment in addition to energy payments? Does your answer vary by technology? Could an auction or tender-based system for renewable capacity payments (similar to Forward Capacity Markets) help increase economic efficiency and/or reduce risk on behalf of the investor?
- d. Should ART prices be set at a level such that a typical participating customer will earn a positive return on their investment in renewable energy? If so, what might be an appropriate return?
- e. Should utilities offer separate prices for on-peak and off-peak generation or a single blended ART price? Should the utility or the customer be allowed to decide on their preferred approach?
- f. Should ART contracts include an automatic adjustment in the price based on inflation?
- g. If the Commission does not require utilities to offer uniform contract duration for all ARTs, should utilities offer different prices for different contract durations?
- h. If any fixed premium ARTs are established (rather than fixed cost ARTs), should the premium be over and above the Locational Marginal Price, or should it be tied to some other number? Since a fixed premium would result in a variable price, should there be a price cap or other measures to prevent unacceptable profits or losses?
- i. Should ART prices be automatically reduced annually (or periodically) to reflect the maturation of technologies and the need for renewables to become cost competitive without price supports (degression)?
- j. Are there any benefits to customers unrelated to electricity generation that should be reflected in the tariff prices?

**16. Other**

- a. Are there any other ART design considerations that you feel the Commission should consider?

**NOTICE IS GIVEN** that the Commission considers it necessary, in order to carry out its duties, to investigate all books, accounts, practices, and activities of the utilities. The expenses incurred or to be incurred by the Commission which are reasonably attributable to such an investigation will be assessed against and collected from the utilities in accordance with the provisions of Wis. Stat. § 196.85 and Wis. Admin. Code ch. PSC 5.

This is a Type III action under Wis. Admin. Code § PSC 4.10(3). The Commission will review the potential environmental effects of the project. Type III actions normally do not require the preparation of an environmental impact statement under Wis. Stat. § 1.11 or an environmental assessment.

The Commission requests comments on the above issues. Comments are due no later than Tuesday, February 17, 2009, at noon. Comments must be filed using the Electronic Regulatory Filing system (ERF). The ERF system can be accessed through the Public Service Commission's website at <http://psc.wi.gov>. Members of the public may file comments using the ERF system or may file an original in person or by mail at Public Service Commission, 610 North Whitney Way, P.O. Box 7854, Madison, Wisconsin 53707-7854.

The Commission does not discriminate on the basis of disability in the provision of programs, services, or employment. Any person with a disability who needs accommodations to participate in this docket or who needs to obtain this document in a different format should contact the docket coordinator listed below.

Questions regarding this matter may be directed to docket coordinator John Shenot at (608) 267-3798.

Dated at Madison, Wisconsin, January 15, 2009

By the Commission:

Sandra J. Paske  
Sandra J. Paske  
Secretary to the Commission

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